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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,928	09/30/2003	Bethany Kniffin Hoogs	131013	8267
6/147 7590 08/19/2009 GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309				
EXAMINER NGUYEN, TAN D				
ART UNIT		PAPER NUMBER		
3689				
NOTIFICATION DATE		DELIVERY MODE		
08/19/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/676,928

**Applicant(s)**

HOOGS ET AL.

**Examiner**

Tan Dean D. Nguyen

**Art Unit**

3689

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-26, 44-53 and 68-74 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-26, 44-53 and 68-74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 9/30/2003
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group II, claims 15-26, 44-53, and 68-74 in the reply filed on 4/3/09, is acknowledged and appreciated. Claims 1-14, 27-43 and 54-67 are canceled. The claims include 3 groups:

- 1) Method<sup>1</sup>: 15-21,
- 2) Method<sup>2</sup>: 22-26,
- 3) System: 44-53, and
- 4) computer readable medium (CRM): 68-74.

### ***I. Facts Findings***

1) record:

**1** : the state or fact of being recorded

**2** : something that records: as **a** : something that recalls or relates past

events **b** : an official document that records the acts of a public body or

officer **c** : an authentic official copy of a document deposited with a legally

designated officer **d** : the official copy of the papers used in a law case

**3 a** (1) : a body of known or recorded facts about something or someone

especially with reference to a particular sphere of activity that often forms a

discernible pattern <a good academic *record*> <a liberal voting *record*> (2) : a

collection of related items of information (as in a database) treated as a unit **b** (1) : an attested top performance (2) : an unsurpassed statistic.

## ***II. Principles of Laws***

2. Note: that it appears that independent claim 44 is an apparatus claim. In examination of the apparatus claim, the claims must be structurally distinguishable from the prior art. While features of an apparatus claim may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. See MPEP 2114. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). Apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. vs. Bausch & Lomb Inc.* (Fed. Cir. 1990). Manner of operating the device or elements of the device, i.e. recitation with respect to the manner in which a claimed apparatus is intended to be employed/used, does not differentiate apparatus from the prior art apparatus. *Ex parte Masham*, 2 USPQ2d 1647 (BPAI, 1987).

## ***III. Claim Objections***

3. Dep. claims 16, 69 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Dep. claims 16 and 69 deal with "retrieving" step and it's not clear how "using a plurality of proximity rules to identify ..." further limits the "retrieving" step?

***IV. Claim Rejections - 35 USC § 112***

4. Claims 15-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) In claim 15, it's not clear whether "an article" from the "parsing" is the same or different from "article" from the "retrieving" step?

2) In claim 15, the "comparing step" is vague because it compares a record or a file (data storage) to "templates of pattern events" which appear to be a "pattern" or "trend" or "subject" or "behavior". These appear to be different items/features and it's not clear how do you compare two different items or features to obtain a result or "match" which normally require two similar items or items of similar structures?

3) Claim 15 recites the limitation "the degree" in the last step. There is insufficient antecedent basis for this limitation in the claim.

4) Similarly, independent claims 22, 44, and 68, which have similar limitations to independent claim 15, are rejected for the same reasons set forth in the rejection of claim 15 to minimize duplication.

5) Claim 20, the last two lines are vague because the phrase "at least one of cased-based reasoning and a Bayesian belief network" is not clear whether one item is needed or both items are needed.

6) Similarly, dependent claims 25 and 73, which have similar limitations to dependent claim 20, are rejected for the same reasons set forth in the rejection of claim 20 to minimize duplication.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claims 15-21 (method) and 22-26 (method)** are rejected under 35 U.S.C. 101.

Based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to an examiner is that a § 101 process must

(1) be tied to a particular machine or apparatus or

(2) transform underlying subject matter (such as an article or materials) to a different state or thing.

See (1) *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); (2) *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); (3) *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); and (4) *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

To qualify as a § 101 statutory process, the claim should recite the particular machine or apparatus to which it is tied, for example by identifying the machine or apparatus that accomplishes the method steps, or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. Second, insignificant

extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test.

Here, applicant's method steps fail the first prong of the new test because the claimed invention fails to set forth a particular machine that is specifically configured/programmed to carry out the claimed invention. See claim 1 or 7 of Diehr, II, et al., US patent 4,344,142. Specifically, the Examiner asserts that the current claim language can be interpreted that the steps are carried out manually.

Further, applicant's method steps fail the second prong of the test because there is no transformation of the data. It is asserted that the data has not been transformed into another state or into another object.

The applicant is reminded that:

"Purported transformation or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances.

(In re Bernard L. Bilski and Rand A. Warsaw Page 28)"

Moreover, the "transformation must be central to the purpose of the claimed process.

(In re Bernard L. Bilski and Rand A. Warsaw Page 28)"

7. Claims 44-53 (system) are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Note: that it appears that independent claim 44 is an apparatus claim. In examination of the apparatus claim, the claims must be structurally distinguishable from the prior art. While features of an apparatus claim may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. See MPEP 2114. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). Apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. vs. Bausch & Lomb Inc.* (Fed. Circ. 1990). Manner of operating the device or elements of the device, i.e. recitation with respect to the manner in which a claimed apparatus is intended to be employed/used, does not differentiate apparatus from the prior art apparatus. *Ex parte Masham*, 2 USPQ2d 1647 (BPAI, 1987).

Current claims 44-53 comprise a database, search component, extraction engine component, a semantic analysis tool, a pattern events database, and a pattern analyzer, which are basically software components. There are no citations of an apparatus or structural elements or devices such as processor or computer or computer server.

8. In regards to **claims 68-74 (computer readable media)**, the applicant discloses a "computer readable medium." The Examiner asserts that unless the data has been executed by a computer the program code is non functional descriptive data. The language of the current claims does not define the necessary structural and functional interrelationship between the program the computer so as to permit the computer program's functionality to be realized.



1) "computer-readable medium storing computer instructions for instructing a computer system to analyze ....", which is deemed software per se, and therefore considered disembodied functional descriptive material. A computer software application *per se* does not define any structural and functional interrelationships between the computer application and other claimed elements of a computer which permit the computer application's functionality to be realized.

**NOTE:** Exemplary claim language of an ideal computer system/machine tied to a program is given as follows:

A computer-readable storage medium having stored thereon a computer program for "xxxx", the computer program comprising a routine set of instructions which when executed by a computer machine cause the computer machine to perform the steps of: "xxxx".

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 15-21, 22-26, 44-53, and 68-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over FLESHER et al (US 2004/0103147).

As for independent claims 15, 22, 44 and 68, which have similar scope, FLESHER et al discloses a method, system, and CRM for analyzing business risk of a target business entity from qualitative event business information, comprising:

a) retrieving a plurality of articles (documents) each containing qualitative event information relevant to the target business entity, wherein the retrieved articles contain keywords (name) and textual content or patterns that are representative of events of interest for the target business entity and are within a reasonable proximity to the target business entity;

{see Fig. 2A, 12, 18, pars. [0006-0007]}

b) parsing each sentence within a paragraph of text from an article that contains keywords and textual content or patterns into component parts of speech and grammar structure;

{see Figs. 2A, 216, 2C, 11, element 1100, 18, pars. [0006 "patterns..."], [0020], especially [0115]}

c) extracting event details and relationships between events and the target business entity from the component parts of speech and grammar structure;

d) generating a structured events record from the extracted event details and relationships;

{see pars. [0082-0084, 0101]}

e) comparing the structured events record to templates of pattern events, wherein each template comprises a number and type of events that form a pattern in an event category and temporal constraints that exist between the events (analysis);

{see Figs. 18-19 "**Constraint (guard) Rules**", pars. [0082, 0084]}

f) using temporal based reasoning to identify templates of pattern events (list) that match the structured events record; and

{see Figs. 5, 502, pars. [0082]}

g) generating a probability of risk (threat) measure (level) based on the degree of match between the identified templates of pattern events and the structured events record.

{see Fig. 1, 4, 38, 40, pars. [0079], [0082] and [0101]}

FLESHER et al appears to teach the claimed invention except for the text pattern in step (a). However, in view of the teachings of keywords (name) and textual content or patterns (behaviors) that are representative of events as shown on pars. [0006-0007, 0082, and 0204], the use of other similar textual feature such as textual pattern would have been obvious to a skilled artisan as mere using other similar textual querying parameters in a limited field of textual parameters to achieve similar results if desired.

As for dep. claims 16 (dep. of 15), 45 (dep. of 44) and 69 (dep. of 68), which deal with rules for relating keywords or events in the articles/documents to the target business entity, these are taught in pars. [0006, 0015, 0082, 0084, 0101].

As for dep. claims 17-18 (dep. of 15), 23 (dep. of 22), 46-49 (dep. of 44) and 70-71 (dep. of 68), which deal with information extraction parameters and relationship parameters between the events and the target business entity, these are fairly taught in Figs. 2A, 21-22, pars. [0006, 0015, 0082, 0084, 0101].

As for dep. claims 19 (dep. of 15), 24 (dep. of 22), 50 (dep. of 44) and 72 (dep. of 68), which deal with matching reasoning/logic parameters, i.e. at least one of case-based reasoning, this is inherently included in Figs. 2A, pars. [0082, 0101].

As for dep. claims 20 (dep. of 15), 25 (dep. of 22), 51-52 (dep. of 44) and 73 (dep. of 68), which deal with the types of structured events record, i.e. event category, event keyword, etc., these are inherently included in Figs. 17, 22, 29, 34, 40, 42, and 53, pars. [0082-0084, 0101, 0218].

As for dep. claims 21 (dep. of 15), 26 (dep. of 22), 53 (dep. of 44) and 74 (dep. of 68), which deal with feature of generating an alert when the level of risk reaches a predetermined level (threshold), this is taught in Figs. 38, 40, pars. [0101-0102].

No claims are allowed.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct@uspto.gov>. Should you have any questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

13. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

14. Any response to this action should be mailed to:

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15. In receiving an Office Action, it becomes apparent that certain documents are missing, e. g. copies of references, Forms PTO 1449, PTO-892, etc., requests for copies should be directed to Tech Center 3600 Customer Service at (571) 272-3600, or e-mail [CustomerService3600@uspto.gov](mailto:CustomerService3600@uspto.gov).

16. Any inquiry concerning the merits of the examination of the application should be directed to Dean Tan Nguyen at telephone number (571) 272-6806. My work schedule is normally Monday through Friday from 6:30 am - 4:00 pm. I am scheduled to be off every other Friday. Should I be unavailable during my normal working hours, my supervisor Janice Mooneyham can be reached at (571) 272-6805. The main FAX phone numbers for formal communications concerning this application are (571) 273-8300. My personal Fax is (571) 273-6806. Informal communications may be made, following a telephone call to the examiner, by an informal FAX number to be given.

/Tan Dean D. Nguyen/  
Primary Examiner, Art Unit 3689

